

WHAT IS CLAIMED IS:

1. A flexible polyurethane foam comprising a fire retardant consisting of a brominated composition, or a phosphorous composition, or both and an acid scavenger.

2. The flexible polyurethane foam composition according to claim 1 wherein the fire retardant is one or more components selected from the group consisting of tetrabromobenzoate esters, tetrabromophthalate esters, hexabromocyclododecane, tribromoneopentyl alcohol, dibromoneopentyl glycol, tricresyl phosphate, trixylyl phosphate, butylated triphenyl phosphate, isopropylated triphenyl phosphate, triphenyl phosphate, triethyl phosphate, tris(2-ethylhexyl), phosphate, dimethylpropyl phosphonate, isodecyl diphenyl phosphate, cresyl diphenyl phosphate, tri-n-butyl phosphate, tri-isobutyl phosphate, tributoxyethyl phosphate, resorcinol bis(diphenyl phosphate), bisphenol A bis(diphenyl phosphate), 2,6,7-trioxa-1-phosphabicyclo[2.2.2] octane-4-methanol, 1-oxide, and diethyl ethyl phosphonate.

3. The flexible polyurethane foam composition according to claim 1 wherein the acid scavenger is one or more components selected from the group consisting of hydroxides, carbonates, bicarbonates, amines, zeolites, hydrotalcites, epoxides, and diepoxides.

4. The flexible polyurethane foam composition according to claim 2 wherein the acid scavenger is one or more components from the group consisting of hydroxides, carbonates, bicarbonates, amines, zeolites, hydrotalcites, epoxides, diepoxides,.

5. The flexible polyurethane foam composition according to claim 2 wherein the acid scavenger is one or more components from the group consisting of: 3,4-epoxycyclohexyloxirane, 2-(3',4'-epoxycyclohexyl)-5,1"-spiro-3",4"-epoxycyclohexane-1,3-dioxane, bis(3,4-epoxy-cyclohexylmethyl)adipate, cyclopentene oxide, cyclohexene oxide, propylene oxide, butylene oxide, hexylene oxide, 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, and the glycidyl ethers of: ethylene glycol, propylene glycol, glycerol, neopentyl glycol, pentaerythritol, and triglycidyl isocyanurate.

6. The flexible polyurethane foam composition according to claim 2 wherein the acid scavenger is 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid.

7. The flexible polyurethane foam composition according to claim 6 wherein the flame retardant is a mixture of 2-ethylhexyltetrabromobenzoate and isopropylated triphenylphosphate.

8. A method of preparing a flame retarded flexible polyurethane foam composition comprising adding a flame retardant consisting of a brominated composition, or a phosphorous composition, or both and an acid scavenger to the mix of polyurethane ingredients prior to incorporation of an isocyanate to the mix.

9. The method of claim 8 wherein the flame retardant is selected from the group consisting of tetrabromobenzoate esters, tetrabromophthalate esters, hexabromocyclododecane, tribromoneopentyl alcohol, dibromoneopentyl glycol, tricresyl phosphate, trixylyl phosphate, butylated triphenyl phosphate, isopropylated triphenyl phosphate, triphenyl phosphate, triethyl phosphate, tris(2-ethylhexyl)phosphate, dimethylpropyl phosphonate, isodecyl diphenyl phosphate, cresyl diphenyl phosphate, tri-n-butyl phosphate, tri-isobutyl phosphate, tributoxyethyl phosphate, resorcinol bis(diphenyl phosphate), bisphenol A bis(diphenyl phosphate), 2,6,7-trioxa-1-phosphabicyclo[2.2.2] octane-4-methanol, 1-oxide, and diethyl ethyl phosphonate.

10. The method of claim 8 wherein the wherein the acid scavenger is one or more components selected from the group consisting of hydroxides, carbonates, bicarbonates, amines, zeolites, hydrotalcites, epoxides, diepoxides.

11. The method of claim 9 wherein the wherein the acid scavenger is one or more components selected from the group consisting of hydroxides, carbonates, bicarbonates, amines, zeolites, hydrotalcites, epoxides, diepoxides.

12. The method of claim 9 wherein the acid scavenger is one or more components selected from the group consisting of: 3,4-epoxycyclohexyloxirane, 2-(3',4'-epoxycyclohexyl)-5,1"-spiro-3",4"-epoxycyclohexane-1,3-dioxane, bis(3,4-epoxy-cyclohexylmethyl)adipate, cyclopentene oxide, cyclohexene oxide, propylene oxide, butylene oxide, hexylene oxide, 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, and the glycidyl ethers of: ethylene glycol, propylene glycol, glycerol, neopentyl glycol, pentaerythritol, and triglycidyl isocyanurate.

13. The method of claim 9 wherein the acid scavenger is 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid.

14. The method of claim 13 wherein the flame retardant is a mixture of 2-ethylhexyltetrabromobenzoate and isopropylated triphenylphosphate.